WHAT IS CLAIMED IS:

1. A trocar assembly comprising:

a trocar having a distal end, a proximal end, and a trocar lumen from said proximal end to said distal end; and

a trocar cap for removable attachment to said proximal end of said trocar body, said cap having a cap lumen,

wherein said trocar and said trocar cap each include a magnetic member, at least one of said magnetic members comprising a first magnet, and the other of said magnetic members comprising a second magnet or a non-magnetized magnetically permeable member, said magnetic members being positioned on said cap and said trocar for magnetically securing said cap to said proximal end of said trocar with said cap lumen in alignment with said trocar lumen.

2. A trocar assembly as in claim 1, wherein both said magnetic members comprise permanent magnets, the magnetic fields thereof being oriented to attract a predetermined side of said cap to said base.

3. A trocar assembly as in claim 1, wherein:

said trocar includes an elongated, generally annular cannula for extending through a tissue boundary, said cannula having a distal end for placement on one side of the tissue boundary and a proximal end for placement on another side of the tissue boundary, and a trocar base disposed at said proximal end of said cannula, said trocar lumen extending from a proximal end of said base axially through said cannula to said distal end thereof;

said magnetic member in said base is a non-magnetized magnetically permeable material disposed at said proximal end of said base; and

said trocar cap includes a cap lumen and said magnetic member is a magnet for cooperating with said magnetic member on said base for magnetically securing said cap to said base with said trocar lumen and said cap lumen in alignment.

4. A trocar assembly as in claim 3, wherein said magnetic member comprises an annular disc disposed at said proximal end of said base surrounding said trocar lumen.

5. A trocar assembly as in claim 4, wherein said magnet creates a magnetic field generally axially aligned with said cap lumen and having a predetermined strength for holding a distal end of an elongated surgical instrument in place in axial alignment with said cap lumen.

6. A trocar assembly as in claim 5, wherein said cap lumen forms a funnel-shaped opening at a proximal end of said cap.

7. A trocar assembly as in claim 4, wherein said magnet comprises one of an annular disc surrounding said cap lumen and a plurality of individual elements secured to said cap and arranged circumferentially around said cap lumen.

8. A trocar assembly as in claim 5 or 7, wherein said cap lumen forms a funnel-shaped opening at a proximal end of said cap.

9. A trocar assembly as in claim 3, wherein said trocar cap and said trocar base include cooperating camming members for generating a force tending to separate said cap and said base upon movement of said cap transversely to said base.

10. A trocar assembly as in claim 3, wherein:

said magnet in said trocar cap comprises an annular disc secured to said cap surrounding said cap lumen, and said trocar cap further includes an annular cap camming ring surrounding said annular disc and having a first sloped face; and

said magnetic member in said trocar base comprises an annular disc secured to said proximal end of said base surrounding said trocar lumen, and said trocar base further includes an annular trocar camming ring surrounding said annular disc and having a second sloped face for cooperating with said first sloped face for generating a force tending to separate said cap and said base upon movement of said cap transversely to said base.

11. A trocar assembly as in claim 10, wherein said camming rings are compliant to form a circumferential seal between said contacting sloped faces when said cap is magnetically secured to said base.

12. A trocar assembly as in claim 1, further comprising at least one of a cap valve member including a compliant toroidal body disposed in said cap and a trocar valve member including a compliant toroidal body disposed in said trocar base, wherein said toroidal body has a central opening and is disposed for compression axially when said cap is magnetically secured to said base thereby closing said central opening when a surgical instrument is not present in said lumen.

13. A trocar assembly as in claim 12, further comprising said cap valve member and said trocar valve member, wherein said toroidal bodies are in contact to mutually compress each other axially when said cap is magnetically secured to said base.

14. A trocar comprising;

an elongated cannula for extending through a tissue boundary, said cannula having a distal end for placement on one side of the tissue boundary and a proximal end for placement on another side of the tissue boundary and a trocar base disposed at said proximal end of said cannula, with a trocar lumen extending axially of said base from a proximal end thereof to said distal end of said cannula; and

a magnet in said base for creating a magnetic field generally axially aligned with said lumen and having a predetermined strength for holding a distal end of an elongated surgical instrument in place in axial alignment with said lumen.

15. A trocar as in claim 14, wherein said magnet comprises an annular disc disposed at said proximal end of said base surrounding said lumen.

16. A trocar in claim 15, wherein said lumen forms a funnel-shaped opening at said proximal end of said base.

17. A trocar as in claim 14, wherein said magnet comprises a plurality of individual elements disposed at said proximal end of said base and arranged circumferentially around said lumen.

18. A trocar in claim 17, wherein said lumen forms a funnel-shaped opening at said proximal end of said base.

19. A valve for sealing a lumen that can accept a surgical instrument, the valve including:

a valve body comprising a magnet having a depression defining a body with an axis of rotation and a lumen with an axis generally perpendicular to said axis of rotation of said depression, said valve body having a magnetic field with a polar axis disposed at a predetermined angle relative to said valve body lumen axis; and

a valve member seated in said depression and comprising a magnet defining a solid body with an axis of rotation parallel to axis of rotation of said depression and a lumen with an axis generally perpendicular to said axis of rotation of said valve member, said valve member having a magnetic field with a polar axis disposed at a predetermined angle relative to said valve member lumen axis,

wherein said angles of said polar axes of said valve member and said valve body relative to the respective lumens thereof are chosen such that said valve body will automatically rotate in said depression to assume one of (i) a position in which said lumens are aligned and (ii) a position in which said valve member blocks said valve body lumen.

20. A valve as in claim 19, further comprising a mechanism for holding said valve member in said position (i) or (ii) to which it does not automatically rotate.

21. A valve as in claim 20, wherein:

said depression is semi-spherical with an axis of said sphere coaxial with said valve body lumen, said magnetic polar axis of said valve body being aligned with said valve body lumen; and

said valve member is spherical with said valve member lumen coaxial with an axis of said sphere, said magnetic polar axis being perpendicular to said valve member lumen to cause said valve member to rotate in said depression to block said valve body lumen.

22. A mini-trocar assembly comprising:

a trocar including an elongated, generally circular cannula having a diameter of about 2-5 mm for extending through a tissue boundary, said cannula having a distal end for placement on one side of the tissue boundary and a proximal end for placement on another side of the tissue boundary, a base having a generally annular shape about 10-20 mm in diameter and 8-15 mm wide in an axial direction and being disposed at said proximal end of said cannula, said base including a permanent magnet at a proximal end thereof, and a trocar lumen extending from said proximal end of said base to said distal end of said cannula; and

a cap including a magnetic member comprising one of a magnet and a non-magnetized magnetically permeable member, said cap fitting within a mating receptacle in a proximal end of said base.

23. A mini-trocar assembly as in claim 22, wherein said proximal end of said base is generally planar with a predetermined shape and shoulder around the periphery thereof, said cap comprising a generally planar disc of a similar shape that fits within said shoulder.

24. A mini-trocar assembly as in claim 23, wherein said shoulder having a first sloped face and said cap having a second sloped face for cooperating with said first sloped face for generating a force tending to separate said cap and said base upon movement of said cap transversely to said base.

25. A mini-trocar assembly as in claim 23, wherein said proximal end of said base forms a depression that is generally semi-spherical in shape with a predetermined diameter, said cap comprising a generally spherical member with a similar diameter that fits within said depression.

26. A method of aligning a surgical instrument with a trocar lumen, the method including the steps of:

providing a trocar including an elongated cannula extending through a tissue boundary of a patient, said cannula having a distal end for placement on one side of the tissue boundary and a proximal end for placement on another side of the tissue boundary, a base disposed at said proximal end of said cannula, said base including a magnet at said proximal end thereof, and a trocar lumen extending from said proximal end of said base to said distal end of said cannula;

attaching to a distal end of a surgical instrument a disc-shaped aligning device comprising a permanent magnet by positioning in a lumen of said aligning device said magnetically permeable member of said instrument;

magnetically coupling a disc-shaped capping device comprising a magnetic member to said aligning device at a proximal side thereof to hold said surgical instrument between said aligning device and said capping device; and

bringing said distal end of said surgical instrument into proximity with said base so that said aligning device moves into contact with said proximal end of said base and said distal end of said surgical instrument is introduced into said trocar lumen, while maintaining said capping device in contact with said surgical instrument and said aligning device.

27. A method as in claim 26, further including the step of withdrawing said surgical instrument from said trocar and allowing said capping device to remain magnetically coupled to said aligning device in a position capping said trocar lumen.

28. A method as in claim 27, further including the step of attaching to said distal end of said surgical instrument plural said disc-shaped aligning devices magnetically coupled to each other.

29. A method of aligning a surgical instrument across an internal tissue boundary of a patient, the method including the steps of:

(1) providing a generally cylindrical magnetic aligning device with an axial opening at one end thereof, said aligning device comprising a magnet with a polar axis aligned with the axis of said opening;

(2) illuminating one side of the tissue boundary with an illuminating device for providing a visual indication of the location of said opening through the tissue boundary;

(3) grasping with an end effector at a distal end of a surgical instrument a flexible portion of a surgical device including a magnetic member having an elongated axis;

(4) positioning said surgical device proximate to said visual indication of said opening location for aligning said axis of said surgical device with the polar axis of said aligning device; and

(5) forcing said surgical device through said tissue boundary in a direction generally parallel to said axis of said surgical device.

30. A method as in claim 29, further including the step of applying suction to said axial opening to attach said aligning device at a desired location indicated by the illumination of said tissue boundary.

31. A method as in claim 30, wherein said illuminating device includes at least one of a plurality of light emitting diodes at a periphery of said axial opening and a fiber optic cable.

32. A method as in claim 29, wherein said surgical device is a suturing needle and said flexible portion is a suture attached to said needle, said step (3) comprising grasping said suture near a point of attachment to said needle with said end effector and said step (4) comprising positioning said needle by manipulating said surgical instrument at a proximal end thereof external of the patient.

33. A method as in claim 32, wherein said suturing needle is pointed at two ends thereof and said magnetic aligning device includes a gripping device for gripping an end of said needle protruding through said tissue boundary, the method further including the steps of:

(6) gripping an end of said needle with said gripping device and pulling said needle through to the other side of said tissue boundary;

(7) moving said aligning device to a second location determined using said illuminating device;

(8) forcing said needle through said tissue boundary at second location and grasping said needle using said end effector and pulling said needle through said tissue boundary to the first-mentioned side thereof; and

(9) repeating steps (2) to (8) a predetermined number of times.

34. An apparatus for aligning an external needle with an implantable medication dispenser, the apparatus comprising:

a dispenser including a connector for connecting a plenum of said dispenser to an internal vascular body of a patient, a septum through which medication is introduced into said plenum using the needle, an attachment member for securing said dispenser to an internal structure of a patient with said septum accessible through the patient's skin, and a first magnetic member disposed in a predetermined relation to said septum; and

a coupling device including a second magnetic member for magnetically coupling with said first magnetic member and a locating hole disposed in a predetermined relation to said second magnetic member, said septum and said hole being aligned when said first and second magnetic members are magnetically coupled,

wherein at least one of said magnetic members comprises a first magnet, and the other of said magnetic members comprises a second magnet or a non-magnetized magnetically permeable member.

35. An implantable plug comprising:

a plug member including barb members for gripping the walls of a tube when the plug is inserted into a tubal ostium of a patient, said plug comprising a central lumen from a distal end to a proximal end thereof; and

a first magnetic member at said proximate end of said lumen for cooperating with a second magnetic member on a cap for blocking said lumen, wherein at least one of said

magnetic members comprises a first magnet, and the other of said magnetic members comprising a second magnet or a non-magnetized magnetically permeable member.